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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,744	03/29/2005	Tilman Ludecke Taeger	268084US0PCT	1680
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
			EXAMINER	
			KHAN, AMINA S	
		ART UNIT	PAPER NUMBER	
		1796		
		NOTIFICATION DATE	DELIVERY MODE	
		02/08/2008	ELECTRONIC	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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## Office Action Summary

Application No.

10/529,744

Applicant(s)

TAEGER ET AL.

Examiner

AMINA KHAN

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/21/06, 3/29/05</u> | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

1. Claims 1-13 are pending. The examiner's election requirement is withdrawn.

### *Specification*

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet **within the range of 50 to 150 words**. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1,2,5,6 and 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over May et al. (US 4,398,911) in view of Pfleiderer et al. (US 4,484,924).

May et al. teach methods of producing leather comprising soaking, dehairing, opening of the hide structure, deliming, bating, pickling, degreasing and tanning (abstract). May et al. further teach soaking hides with polyelectrolytes such as "Rohagit SD 15" and caustic soda for four hours with no lime present (column 2, lines 50-68; column 3, lines 1-13), which meets the limitation of step A (a)-(c), followed by treating with lime and sodium-2-mercaptoethanol for loosening the hair, separating the hair sludge from the residual bath, which meets the limitation of substantially removing the organic components (column 6, lines 1-55), and degreasing with ethoxylated nonylphenols (column 9, example 9) and tanning (column 3, lines 10-35). May et al. further teach that the waste water after liming do not have the problem of having a high protein content (column 4, lines 1-10). May et al. further teach that recycling of the bath is desirable and recognized by the prior art (column 1, lines 63-66).

May et al. do not teach the compounds of formula B.1.

Pfleiderer et al. teach methods of effectively dehairing animal hides with functionally equivalent compounds such as 1,4-dithioerythrol or mercaptoethanol and compounds of formula R-SH, wherein R is an alkyl and the carbon atoms are optionally substituted by a thiol group (column 3, lines 40-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of May by substituting the 1,4-dithioerythrol or dithio compounds of formula R-SH for mercaptoethanol because Pfeiderer et al. teach their functional equivalence in short term unhairing of hides with these compounds under similar conditions to those of May et al. i.e. in the presence of lime and at alkaline pH at concentrations of 0.1-1.0%. Substitution of art recognized equivalents requires only routine skill in the art.

Regarding the limitations of formula B.1, 1,4-dithioerythrol or compounds of formula R-SH, wherein R is alkyl, in particular alkyl having 2 or 3 carbon atoms, these compounds are lower adjacent homologs and would be expected to possess similar properties to compounds of formula B.1. Furthermore, the limitation of 2 or 3 carbon atoms is simply a preferred embodiment and is not limiting. All disclosures of the prior art, including non-preferred embodiment, must be considered. See *In re Lamberti and Konort*, 192 USPQ 278 (CCPA 1967); *In re Snow* 176 USPQ 328 (CCPA 9173). Nonpreferred embodiments can be indicative of obviousness, see *Merck & Co. v. Biocraft Laboratories Inc.* 10 USPQ 2d 1843 (Fed. Cir. 1989); *In re Lamberti*, 192 USPQ 278 (CCPA 1976); *In re Kohler*, 177 USPQ 399.

5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over May et al. (US 4,398,911) in view of Pfeiderer et al. (US 4,484,924) and further in view of Zaunshuber et al. (US 5,525,120).

May et al. and Pfeiderer et al. are relied upon as described in paragraph 4.

May et al. and Pfeiderer et al. do not teach the instantly claimed degreasing agents.

Zauns-Huber et al. teach degreasing animal skins with fatty alcohol ethoxylates of C12/14 fatty alcohols and 7 moles of ethylene oxide and ethoxylated nonylphenol (columns 5 and 6, Table 1) with similar degreasing results.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of May et al. and Pfeiderer et al. by substituting the fatty alcohol ethoxylates with C12/14 for ethoxylated nonylphenol because Zauns-Huber et al. teach their functional equivalence in degreasing of hides. Substitution of art recognized equivalents requires only routine skill in the art.

6. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over May et al. (US 4,398,911) in view of Pfeiderer et al. (US 4,484,924) and further in view of Turley (US 2,016,260).

May et al. and Pfeiderer et al. are relied upon as described in paragraph 4.

May et al. and Pfeiderer et al. do not teach the hydroxylamines.

Turley teaches soaking and unhairing animal hides by adding hydroxylamine to the alkaline sulphide solution (column 2, lines 1-70) for the benefit of ease of hair removal. Turley teaches treating skins with the modified sulphide solution in lime concentration of 1.9% (100 lbs hydrated lime/ 600 gallons water) or not in the presence of lime (column 2, lines 45-75).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of May et al. and Pfeiderer et al. by incorporating the hydroxylamines taught by Turley because Turley teaches their enhancement of sulphide function for hair removal of animal hides. Regarding the limitation of 0-1.5% lime, one of ordinary skill in the art would have been motivated to modify the methods of May by using a lower concentration of lime during sulphide treatment and polyelectrolyte or liming after sulphide treatment at all as taught by Turley because Turley teaches these methods are effective in providing efficiently dehaired hides. A *prima facie* case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties, see *Titanium MetalsCorp. of America v. Banner*, 778F.2d 775, 227 USPQ 773 (Fed. Cir. 1985). See MPEP 2144.05I.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over May et al. (US 4,398,911) in view of Pfeiderer et al. (US 4,484,924) and further in view of Fein et al. (US 2,941,859).

May et al. and Pfeiderer et al. are relied upon as described in paragraph 4.

May et al. and Pfeiderer et al. do not teach the instantly claimed tanning agents.

Fein teaches tanning leather in glutaraldehyde solutions in acetone at acid pH (column 5, lines 45-55) to provide excellent and rapid tanning (column 2, lines 45-55; column 1, lines 65-72).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the methods of May et al. and Pfeiderer et al. by incorporating the tanning taught by Fein et al. because Fein et al. teach their rapid and efficient tanning benefits of these compounds when applied to animal hides. Regarding the limitation of reaction product between the aldehyde and acetone, one of ordinary skill in the art would have expected similar compounds provided in similar medium at similar conditions to react even though the prior art teaches an inert solvent. Furthermore, glutaraldehyde may react with itself as instantly claimed.

### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMINA KHAN whose telephone number is (571)272-5573. The examiner can normally be reached on Monday through Friday, 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571) 272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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January 4, 2008

*Lorna M. Douyon*  
LORNA M. DOUYON  
PRIMARY EXAMINER